TEN

EMERGENCY PREPAREDNESS AND RESPONSE

10.1 BACKGROUND

The requirements specified in 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response" (the HAZWOPER Standard), have challenged Department of Energy (DOE) sites to incorporate specific Occupational Safety and Health Administration (OSHA) emergency response program requirements into the existing DOE emergency management programs. HAZWOPER establishes minimum worker protection requirements for those employees involved in hazardous waste operations and emergency response. This chapter provides managers at DOE sites with summary guidance on emergency response requirements for compliance with the HAZWOPER Standard, other related regulations, and DOE policy. This chapter is based on the *DOE Emergency Management Guide*, specifically, the chapter on HAZWOPER emergency response requirements.

29 CFR 1910.120 (a)–(q) applies to employers who have employees engaged in, among other activities, emergency response to releases, or potential releases, of hazardous substances, regardless of location, "unless the employer can demonstrate that the operation does not involve employee exposure or the reasonable possibility for employee exposure to safety or health hazards."

29 CFR 1910.120 (q) applies to organizations that respond to emergencies caused by the uncontrolled release of hazardous wastes or substances. Sites where emergency response operations take place, and that do not fall into any of the other categories listed in paragraphs (a)(1)(i) through (a)(1)(iv), must comply only with the requirements of paragraph (q) of HAZWOPER. In contrast, sites that have the possibility for hazardous waste activities under paragraphs (a)(1)(i) through (a)(1)(iv) must comply with multiple paragraphs of HAZWOPER.

To determine whether employees are required to be in compliance with the emergency response provisions of HAZWOPER (29 CFR 1910.120 [q]), the employer examines the functions of the employee to determine if the employee will be assigned a role or function as part of a response to a release of hazardous substances without regard to location. More directly, employees are not allowed to participate in any emergency response activity unless they are in compliance with the requirements of 29 CFR 1910.120 (q) (e.g., responders to the scene would be covered, but operators such as truck drivers are not covered unless they become actively involved in the response action).

Entire sites that do not establish their own emergency response capabilities and elect to evacuate all employees are required to develop an emergency action plan (EAP) in accordance with 29 CFR 1910.38, which is essentially an evacuation plan. Such sites should prepare and implement a memorandum of understanding (MOU) or memorandum of agreement (MOA) with the local fire department or hazardous materials (HAZMAT) response team to define the role of offsite responders, to address the need for offsite resources to support pre-incident planning, and to provide for the availability of adequate offsite response capabilities in an emergency.

Federal property management rules require facilities leased from the General Services Administration to prepare occupant emergency plans describing facility evacuation procedures and designating lead evacuation personnel for any emergency (e.g., fires, hazardous material spills, natural disasters).

10.2 EMERGENCIES AND EMERGENCY RESPONDERS

DOE's national emergency management system provides a framework for development, coordination, and direction of planning, preparedness, and readiness assurance activities for DOE field elements. HAZWOPER provides greater specificity in various areas of DOE's emergency management system. HAZWOPER is intended to provide for employee protection during initial site characterization and analysis, monitoring activities, materials handling activities, training, and emergency response. Nevertheless, the purposes of these programs are similar; both support planning for and mitigation of the impact of hazardous materials emergencies.

Under the HAZWOPER Standard, an "emergency" exists when a site experiences an occurrence that results in, or is likely to result in, an uncontrolled hazardous waste or substance release, causing a potential health or safety hazard that cannot be mitigated by personnel in the immediate work area where the release occurs. Trained responders from outside the immediate work area (which may include other site or facility response personnel, mutual aid groups, or the local fire department or HAZMAT team) are relied upon for response.

Under 29 CFR 1910.120 (a)(3), "Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel, are not considered to be emergency responses within the scope of (HAZWOPER)...responses to releases of hazardous substances where there is no potential health or safety hazard (i.e., fire, explosion, or chemical exposure) are not considered to be emergency responses." Qualified personnel who are trained to clean up such incidental releases under the Hazard Communication Standard are not considered emergency responders (see Example 10-1).

A small quantity of sodium hypochlorite is spilled in a waste-water treatment process, and the maintenance engineer who is normally assigned to the immediate work area mops it up. This situation is not a HAZWOPER emergency. The engineer does not have to be trained to respond in accordance with HAZWOPER, although he would be expected to understand the hazards associated with sodium hypochlorite through hazard communication training and may need additional training under other standards. See also Example 2-1 in Chapter 2.

Example 10-1

Post-emergency response is defined under HAZWOPER as "that portion of an emergency response performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the site has begun." Making this distinction is critical because, among other things, different training requirements and different exposure levels may apply depending on the phase of response. If post-emergency response is performed by an employer's own employees who were part of the initial emergency response, it is considered to be part of the initial response and not post-emergency response (see Example 10-2).

A 55-gallon drum containing flammable liquid has been damaged during handling at a treatment, storage, and disposal (TSD) facility and is currently leaking its contents. A worker calls the DOE emergency response team, which then arrives to manage the spill. While the team is performing its duties, a truck arrives with collateral-duty responders and vacuum equipment to remove the spilled liquid. These collateral-duty workers and outside responders are considered to be part of the emergency response and must be trained accordingly (see Chapter 4). In contrast, if the emergency phase of the incident has been declared over, then the responders require training under other paragraphs of HAZWOPER (i.e., paragraphs [a]-[o]) under provisions established for post-emergency response activities.

Example 10-2

HAZWOPER mandates a more conservative threshold for emergency response (see Example 10-3) than an emergency defined in DOE O 151.1. A DOE site could experience a release requiring emergency response activities according to HAZWOPER without requiring declaration of an emergency under DOE Orders. DOE

> A release of chlorine gas above the immediately dangerous to life or health (IDLH) level and moving through a building is an emergency situation under HAZWOPER. This is unlike an incidental release since the IDLH level has been exceeded. However, depending on the circumstances, the release may not be sufficient to require the declaration of an emergency under DOE O 151.1. The DOE site manager needs to implement HAZWOPER and facility emergency response requirements.

Example 10-3

site personnel may be required to plan for and perform emergency response activities, thereby triggering compliance with HAZWOPER, in situations where the emergency management requirements of DOE Orders do not apply. Figure 10-1 depicts the relationship between hazard communication, HAZWOPER, and the DOE emergency management system. It illustrates DOE emergency management system terms in the context of the level of accident severity.

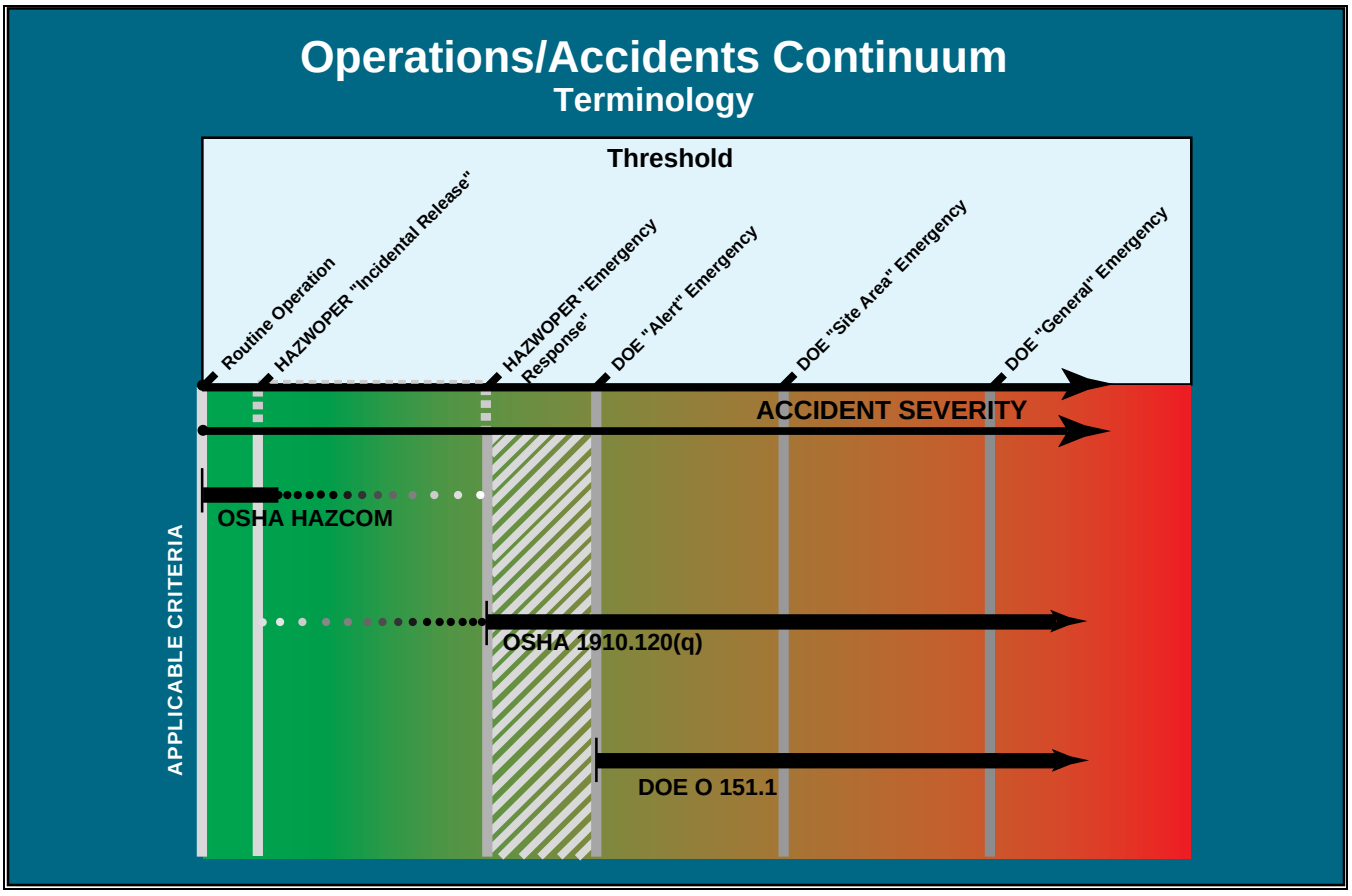

Figure 10-1. Relationship Between HAZWOPER and DOE's Emergency Management System

The OSHA instruction on HAZWOPER generally refers to emergency responders as "employees who respond to emergencies." This categorization includes "employees from outside the immediate release area or...other designated responders (e.g., mutual aid groups, local fire departments)" as well as "employees working in the immediate release area" to be designated as responders by the employer (see Example 10-4). For emergencies occurring at DOE sites, this definition may apply to members of the emergency response organization (ERO) responding to the emergency, certain other DOE personnel, and, potentially, public

Trained workers at the waste-water treatment facility on a DOE site are exchanging an empty 1-ton chlorine tank with a full one. A major leak occurs at the valve packing. The workers immediately evacuate the area and notify site authorities. In accordance with previously established procedures, the site emergency evacuation plan is activated, offsite emergency response forces are summoned and the incident command system initiated. In this scenario, the workers who had been exchanging the tank are not required to be trained as emergency responders under HAZWOPER. The offsite emergency response forces, however, require training and equipment in accordance with HAZWOPER and other applicable State or local criteria such as those promulgated by the National Fire Protection Association (NFPA).

Example 10-4

response personnel. All such individuals are to be covered by a HAZWOPER program. The requirements under HAZWOPER apply to onsite full-time, collateral, and offsite (e.g., public, volunteer) responders.

10.3 APPLICABILITY OF SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT

Title I of the Superfund Amendments and Reauthorization Act (SARA) required that regulations be issued to protect the health and safety of workers engaged in hazardous waste operations and emergency response. As a result of Executive Order 12196 (February 26, 1980), which required the Federal government to comply with Section 6 of OSHA, these standards apply to DOE. SARA Title I Section 126(f) requires the Environmental Protection Agency (EPA) to issue standards for public employees in non-OSHA-approved plan States. The rules adopted by OSHA (29 CFR 1910.120 and 29 CFR 1926.65) and EPA (40 CFR 311) are substantively identical. Twenty-seven States and the District of Columbia are non-OSHA-approved plan States. DOE employees and contractor personnel at DOE sites are required to comply with the HAZWOPER Standard. State and local government (and volunteer) responders in non-OSHA-approved plan States also comply with the same standard, as promulgated by EPA at 40 CFR 311. The federally-approved State OSHA plan indicates that occupational safety and health regulations apply to public-sector employees within these States.

Title III of SARA, known as the Emergency Planning and Community Right-To-Know Act (EPCRA), was a law enacted to improve State and local government capacity to respond to emergencies caused by accidental releases of extremely hazardous substances through enhanced emergency preparedness and to disseminate information to the public on hazardous chemicals made, used, or stored in their communities. It establishes requirements for industry regarding emergency planning and "community right-to-know" reporting on hazardous and toxic chemicals. This law builds on the EPA's Chemical Emergency Preparedness Program (CEEP). SARA Title III is intended to help communities access information and thus better deal with the presence of hazardous chemicals and releases of those chemicals into the environment. Through SARA, States and communities must work together with facilities to improve hazardous materials safety and protect public health. SARA has four major provisions or sections: emergency planning; emergency release notification; community right-to-know reporting requirements; and toxic chemical release inventory.

Emergency Planning (EPCRA Sections 301-303). SARA requires the governor of each State to designate a State emergency response commission (SERC). SERCs include public agencies related to the environment, natural resources, emergency services, public health, occupational safety, and transportation. The SERC must then have designated local emergency districts and an appointed local emergency planning committee (LEPC). The LEPC includes elected State and local officials; police; fire; civil defense and public health officials; and environmental, hospital, and transportation officials, as well as facility representatives. The LEPC requires the development of emergency response plans.

Emergency Release Notification (EPCRA Section 304). Facilities must notify the LEPC and consequently the SERC of any possible environmental release of specific chemicals. The specific chemicals referred to in SARA Title III are found on the Extremely Hazardous Substance List (40 CFR 355) and the Reportable Quantity List (the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] Section 103 [a]). Emergency notification must include chemical name; identification of the chemical by list; estimation of quantity

released; time and duration of release; mode of release (air, water, or soil); known health risks associated with the emergency; applicable precaution; and name and phone number of a contact person. All emergency notifications require a written followup as soon as possible.

Community Right-To-Know Reporting Requirements (EPCRA Sections 311-312). According to EPCRA, facilities must provide either a material safety data sheet (MSDS) or a list of MSDS chemicals to the SERC, LEPC, and local fire department. If facilities choose to supply only a list, the list must include specific information including health hazards, fire hazards, reactivity hazards, and physical data for every chemical on the list. Furthermore, facilities must complete an emergency and hazardous chemical inventory. This inventory is to be submitted to the LEPC, SERC, and local fire department.

Toxic Chemical Release Inventory (EPCRA Section 313). The EPA has established an inventory of routine toxic chemicals which require emissions reporting. Facilities subject to Section 313 are required to submit a toxic chemical release inventory form or "Form R" for specified chemicals, which is completed on an annual basis and is submitted by July 1. Form R notifies public and governmental agencies about routine releases (releases that occur as a result of daily production use) and applies to facilities of 10 or more employees with standard industrial classification (SIC) codes 20 through 39 that manufacture, process, or otherwise use a toxic chemical in excess of specified threshold quantities.

The community HAZMAT emergency response plan can be a valuable source of information in developing site-specific emergency response plans and emergency action plans as required by HAZWOPER. This applies particularly to the need for coordination by DOE sites with offsite response personnel and agencies (e.g., mutual aid agreements and public alert mechanisms). EPA has provided guidance to communities and fire departments for identifying, acquiring, and maintaining HAZMAT response equipment and trained personnel appropriate for their locale.

10.4 EMERGENCY RESPONSE PROGRAM ELEMENTS

There are five emergency response program areas for which HAZWOPER provides more detailed guidance than do DOE Orders or the current *DOE Emergency Management Guide*; these program areas include documents, emergency response organization, emergency equipment and personal protective equipment (PPE), training, and medical surveillance. Hazard evaluation (the identification and assessment of hazards at the site) serves as the foundation for developing a HAZWOPER program, including emergency response program elements.

HAZARD EVALUATION

In complying with HAZWOPER, DOE sites should consider the full range of potential emergency situations based on all existing hazards, including hazards that may have been eliminated from analysis by screening criteria or thresholds in the *DOE Emergency Management Guide*, "Guidance on Hazard Assessments (HAG)." This document describes the identification of chemical hazards as the first step in the hazard assessment process and discusses screening levels and thresholds to eliminate the need to analyze insignificant hazards. The HAZWOPER Standard requires employers to determine the potential for an "emergency" and develop response procedures accordingly.

DOE does not expect that the comprehensive assessment process in the HAG will be necessary for hazards that were below the HAG screening criteria; however, sites will need to analyze these lower level hazards to ensure that site emergency planning addresses all situations that could necessitate an emergency response under HAZWOPER. There are various well-established methods for identifying and evaluating such hazards, each requiring different levels of site resources and personnel expertise. The most common methods, their applicability to specific hazardous operations, and the results they produce, are described in detail in the Center for Chemical Process Safety's *Guidelines for Hazard Evaluation Procedures*.

DOCUMENTS

There is considerable overlap between HAZWOPER and DOE O 151.1, "Comprehensive Emergency Management System," concerning required emergency plan documentation and planning elements. As a result, many of the HAZWOPER components are already an integral part of a DOE site's emergency management system. Note that the following specific terminology may not apply to DOE sites but the planning elements generally do.

Emergency Action Plan (EAP). An EAP is essentially an evacuation plan. DOE sites that intend to evacuate their employees from the danger area (and not allow any employees to participate in response operations), when a release requiring emergency response occurs, are required by OSHA to have an EAP, prior to commencement of operations, with the elements specified by 29 CFR 1910.38 (a) as shown below:

- Emergency escape procedures and emergency escape route assignments;
- Procedures to be followed by employees remaining to operate critical plant operations before they evacuate;
- Procedures to account for all employees after emergency evacuation has been completed;
- Rescue and medical duties for those who are to perform them;
- Preferred means of reporting fires and other emergencies;
- Names or regular job titles of persons or departments who can be contacted for additional information or explanation of duties under the plan; and
- Pre-incident planning, coordination, and notification procedures with outside parties as required by 29 CFR 1910.120.

Emergency Response Plan (ERP). An OSHA ERP is a written plan to prepare for and handle anticipated emergencies prior to commencement of hazardous waste operations or emergency response operations. If DOE facility employees are expected to respond to spills or releases that require an emergency response, OSHA requires the development of an ERP containing the elements outlined in 29 CFR 1910.120 (q)(2) and (l)(3)(iv) as shown below:

- Pre-incident planning and coordination with outside parties (e.g., local emergency response community);
- Pre-emergency planning prior to operation;
- Personnel roles, lines of authority, training, and communication;
- Emergency recognition, identification, and prevention;
- Safe distances and places of refuge;
- Site security and control;
- Evacuation routes and procedures;
- Decontamination;
- Emergency medical treatment and first aid;
- Emergency alerting and response procedures;
- Critique of response and followup;

- PPE and emergency equipment; and
- Conduct of periodic drills.

EMERGENCY RESPONSE ORGANIZATION

Development of procedures for handling emergency response, incident command protocols, and safety practices at the scene of a HAZMAT emergency is addressed in 29 CFR 1910.120 (q)(3). DOE Orders do not specifically address some of the requirements for on-scene emergency response included in the HAZWOPER Standard; the following emergency response organizational issues, while not specified in detail in DOE Orders, should be addressed:

- Coordination and control of emergency responder communications;
- Specific responsibilities with regard to use of engineering controls, hazardous substance handling procedures, and use of new technologies;
- Self-contained breathing apparatus (SCBA) use requirements;
- On-scene response, safety practice requirements, and safety official responsibilities;
- Incident commander role, such as implementing decontamination procedures;
- On-scene safety requirements for pre-briefings for personnel, instructions for wearing PPE and for response duties, and health and safety precautions for skilled support personnel; and
- Common terms (such as those proposed by the NFPA).

An incident command system (ICS) or incident management system (IMS) is an organized approach to effectively control and manage operations at an incident involving hazardous substances, regardless of size. Implementation of the ICS/IMS is required by the HAZWOPER Standard. An effective ICS/IMS will avoid confusion, improve safety, organize and coordinate actions, and facilitate effective management at the scene of an incident. The basic elements of an ICS and IMS include:

- Consolidated action plans;
- Modular organization;
- Incident commander;
- Unified command structure;
- Manageable span-of-control;
- Integrated communications;
- Pre-designated facilities; and
- Comprehensive resources management.

The individual in charge of the ICS/IMS (the incident commander) is the senior HAZMAT official responding to the incident. At DOE facilities, the on-scene incident commander should be designated as a key position within the emergency response organization reporting either to the facility emergency manager or site emergency director. The incident commander has full authority to carry out his or her responsibilities and priorities, which include protection of personnel, property, and the environment at the emergency scene. An ICS/IMS ensures that an incident commander is appointed and a system is established to address the practical aspects of on-scene response, responder safety, and return to normal operations.

When offsite emergency response groups are expected to provide primary or any backup support for a hazardous material emergency at a DOE facility, advance coordination with those groups regarding the ICS/IMS is needed. Site and offsite emergency response plans and procedures for on-scene incident response and command should be coordinated to make certain that it is understood who will be the individual in charge of on-scene incident response. At DOE facilities with limited onsite response resources, incident command may be assumed by an offsite response organization representative. Sites with trained and equipped responders will typically provide the on-scene incident commander with mutual aid responders reporting to this individual.

EMERGENCY EQUIPMENT AND PERSONAL PROTECTIVE EQUIPMENT

HAZWOPER requirements for PPE are more specific than the requirements in DOE Orders; however, there is no conflict between DOE and OSHA requirements. NFPA Standards 471 and 472 also provide additional guidance for PPE use. Areas of guidance in the HAZWOPER Standard not specified in DOE Orders include:

- **SCBA Use In Emergency Response.** 29 CFR 1910.120 (q)(3)(iv) requires that a positive-pressure SCBA be used "while engaged in emergency response, until such time that the individual in charge of the ICS determines through the use of air monitoring that a decreased level of respiratory protection will not result in hazardous exposure to employees." If the incident commander is limited in his or her ability to monitor and characterize the site (e.g., identify hazards), then positive-pressure SCBA is to be used.

- **Approved Cylinders.** Per 29 CFR 1910.120 (q)(3)(x), "approved SCBAs may be used with approved cylinders from other approved SCBAs provided such cylinders are of the same capacity and pressure rating."

- **Chemical Protective Clothing and Equipment.** Information gathered at the site characterization stage of an emergency response operation influences all other aspects of the response (e.g., delineation of contamination zones). Based on characterization of the emergency site, the incident commander is responsible for implementing appropriate emergency response operations and making certain that appropriate PPE is used, recognizing that turnout gear is not appropriate for chemical exposure emergencies.

  In a fire or thermal energy hazard, PPE worn by responders must meet, at a minimum, the criteria in 29 CFR 1910.156 (e), "Fire Brigade Standard," requiring turnout gear. In conditions where skin absorption of a hazardous substance may result in substantial possibility of immediate death, serious illness, or injury or impaired ability to escape, totally encapsulated chemical protective suits must be used.

  The incident commander should rely on visual observation of placards, labels, and manifests, as well as information from the plant. Obtaining air measurements with monitoring equipment for toxic concentrations of vapors, particulates, explosive potential, and the possibility of radiation exposure is important for determining the nature, degree, and extent of the hazards.

TRAINING

HAZWOPER training requirements for emergency responders are generally more specific than requirements found in DOE Orders; however, there is generally no conflict between DOE and HAZWOPER requirements. A specific discussion of the HAZWOPER requirements for emergency responders is included in Chapter 4, "Training," of this Handbook.

MEDICAL SURVEILLANCE

In the medical surveillance area, there is no conflict between the HAZWOPER Standard and DOE Orders; however, HAZWOPER presents more specific requirements with regard to medical surveillance of emergency response team members and provision by the physician of a written medical report to the individual. As cited in the OSHA instruction, if response activities involve infectious materials, the site is to comply with 29 CFR 1910.120 (q), and may also have to comply with 29 CFR 1910.1030, "Bloodborne Pathogens." If there is a conflict or overlap, the provision that is more protective of employee health and safety applies (see also NFPA Standard 1500, as appropriate).

Additional areas of guidance not specified in DOE Orders include medical surveillance of and consultation for emergency responders and emergency medical treatment, transport, and first aid.

Medical Surveillance of and Consultation for Emergency Responders. Members of a HAZMAT team are to receive baseline physical examinations to certify their physical ability to perform assigned duties, including the ability to work within the confines of PPE. They should be provided with medical surveillance annually and after a hazardous substance exposure. It is expected that participation as a HAZMAT emergency responder will be contingent on participation in a medical surveillance program. The employer is to furnish the employee with a copy of the physician's written opinion indicating medical results and whether the employee is capable of working with hazardous substances.

Any emergency response employee who exhibits signs or symptoms that may have resulted from exposure to hazardous substances during an emergency incident is to receive medical consultation. The responder's employer is to provide to the physician a description of the employee's duties as they relate to the individual's exposure, the responder's exposure level, a description of any PPE used, and information from previous medical examinations of the employee that is not readily available to the examining physician.

The responder is to be furnished a copy of a written opinion from the attending physician, including the physician's opinion on any detected medical conditions that would place the employee at increased risk, the physician's recommended limitations on the employee's assigned work, and the results of the medical examination and tests.

EMERGENCY MEDICAL TREATMENT, TRANSPORT, AND FIRST AID

As provided in the *DOE Emergency Management Guide*, "Guidance on Emergency Medical Support," site emergency response organizations should "develop and maintain MOAs or MOUs with local medical centers for treatment beyond site capability for injured, contaminated, or irradiated personnel." Facilities are expected to coordinate with hospitals or other medical care providers prior to emergencies in case victims need emergency transportation or decontamination services.

10.5 COMPARISON OF DOE ORDERS TO THE HAZWOPER STANDARD AND TO THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT

Appendix A of the *DOE Emergency Management Guide*, "Draft Guidance for HAZWOPER Emergency Response Requirements," presents a comprehensive "crosswalk" between DOE Emergency Management Orders and 29 CFR 1910.120. This comparison indicates differences and similarities between the DOE and OSHA approaches to regulating emergency management. DOE Orders are intended to institute a complex-wide emergency management system that is applied consistently from the facility and site level up through DOE Headquarters. HAZWOPER protects employees in the facility and those who enter the facility to respond to an emergency. The reader is referred to the aforementioned appendix for details of this comparison.

Similarly, Appendix B to the *DOE Emergency Management Guide*, "Draft Guidance for HAZWOPER Emergency Response Requirements," presents a "crosswalk" between DOE Emergency Management Orders and SARA Title III, also referred to as EPCRA. This comparison indicates differences and similarities between DOE and EPCRA emergency response methods and procedures. DOE Orders are intended to institute a complex-wide emergency management system applied consistently from the facility and site level up through DOE Headquarters. EPCRA protects public emergency responders and the community at large.

EPCRA requires States and local jurisdictions to develop emergency response plans. In addition, facilities, including DOE facilities, are to share information about the hazardous materials they have onsite with the community, usually provided by MSDSs. EPCRA directs the appointment of LEPCs. LEPCs are to develop a community emergency response plan that contains methods and procedures to be followed by facility owners, local emergency responders, and emergency medical personnel. Facilities, in turn, provide information to LEPCs that is necessary for developing and implementing these emergency plans. The reader is referred to the aforementioned Appendix B for details of this comparison.

10.6 EMERGENCY RESPONSE SELF-ASSESSMENT GUIDELINES

Emergency response self-assessment guidelines have been developed as an appendix to this Handbook to facilitate self-assessment to determine how well a facility or site has implemented the emergency response provisions of HAZWOPER. The guidance is consistent with the EPA's National Response Team (NRT) Integrated Contingency Plan (the "one" plan). The guidelines cover five major topics:

- Pre-assessment planning;
- Self-assessment training;
- Administrative requirements;
- Conducting the self-assessment; and
- Post-assessment activities.

> Performing an emergency response self-assessment is one of the best tools for strengthening a facility's or site's emergency response program. The *HAZWOPER Emergency Response Self-Assessment* guidelines developed as an appendix to this Handbook provide detailed procedures and checklists to facilitate self-assessment.

PRE-ASSESSMENT PLANNING

Pre-assessment planning includes:

- **Determining applicable regulations** using the decision tree included in the guidelines, and obtaining copies of all emergency response plans and procedures.
- **Contacting the facility or site,** including all organizations who have emergency response responsibilities, and planning and scheduling the self-assessment. Request a point of contact to represent management, and identify the technical resources needed to complete the self-assessment.
- **Contacting all outside organizations,** including regulatory agencies, who play a role in emergency response for the facility or site.
- **Developing a self-assessment management plan** to include major milestones and completion dates.

SELF-ASSESSMENT TRAINING

Training for the self-assessment team members is an important element and critical for a successful outcome of a self-assessment. Training should include the regulatory basis for the self-assessment; organization and roles and responsibilities; the information-gathering techniques to be used; and proper questioning and listening techniques.

ADMINISTRATIVE REQUIREMENTS

Administrative requirements include developing schedules correlating with management plan milestones and completion dates; conducting briefings for management and affected staff; and determining and managing potential impacts to facility or site schedules.

CONDUCTING THE SELF-ASSESSMENT

A two-step process is followed to complete a self-assessment:

- **Perform a regulatory crosswalk** so that the self-assessment team becomes thoroughly familiar with the regulations that affect the facility or site.

- **Use checklists to perform the self-assessment.** The emergency response self-assessment guidelines contain checklists that are used to determine compliance with regulations. Detailed documentation of all interviews, discussions, observations, and activities should be maintained. All information should be verified to ensure its accuracy and validity.

POST-ASSESSMENT ACTIVITIES

At the conclusion of the self-assessment, a report should be drafted that details the purpose and scope of the self-assessment; the participants; the schedule of activities; a list of needed improvements; and emergency response program strengths. Before the report is finalized, a review copy of the draft report should be provided to all key facility or site representatives who participated in the self-assessment. The facility or site should develop and commit to a corrective action plan.

10.7 REFERENCES

29 CFR 1910.38, "Employee Emergency Plans and Fire Protection Plans"

29 CFR 1910.1030, "Bloodborne Pathogens"

29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response"

29 CFR 1910.156 (e), "Fire Brigade Standard"

40 CFR 311, "Worker Protection"

40 CFR 355, "Emergency Planning and Notification"

44 CFR 351, "Radiological Emergency Planning and Preparedness"

60 FR 33310, "Centers for Disease Control and Prevention (CDC) Recommendations for Civil Communities Near Chemical Weapons Depots: Guidelines for Medical Preparedness"

DOE G-420.1/B-O, "Implementation Guide for Use with DOE Orders 420.1 and 440.1, Fire Safety Program"

DOE O 151.1, "Comprehensive Emergency Management System"

DOE O 420.1, "Facility Safety"

DOE O 440.1, "Worker Protection Management for DOE Federal and Contractor Employees"

Environmental Protection Agency, *HAZMAT Team Planning Guidance*, EPA/540/G-90/003

Environmental Protection Agency, "The National Response Team's Integrated Contingency Plan Guidance," 61 FR 28642

"Guidance on DOE Emergency Exercise Evaluation Criteria," *Emergency Management Guide*, December 11, 1993

"Guidance on Drills and Exercises," *Emergency Management Guide*, December 11, 1991

"Guidance on Emergency Facilities and Equipment," *Emergency Management Guide*, August 16, 1993

"Guidance on Emergency Medical Support," *Emergency Management Guide*, June 26, 1992

"Guidance on Emergency Response Organization," *Emergency Management Guide*, August 16, 1993

"Guidance on Hazard Assessments," *Emergency Management Guide*, June 26, 1992

"Guidance for HAZWOPER Emergency Response Requirements," *Emergency Management Guide,* February 28, 1995

"Guidance on Standard Content and Format for Emergency Plans," *Emergency Management Guide*, December 11, 1991

Guidelines for Hazard Evaluation Procedures, Second Edition with Worked Examples. Center for Chemical Process Safety, American Institute of Chemical Engineers, 1992

HAZWOPER Interpretive Quips, Paragraph (q)—Emergency Response Operations, Occupational Safety and Health Administration

National Fire Protection Association Standard 471—1992, "Recommended Practice for Responding to Hazardous Materials Incidents"

National Fire Protection Association Standard 600, "Industrial Fire Brigades"

National Fire Protection Association Standard 1500, "Fire Department Occupational Health and Safety Program"

OSHA Instruction CPL 2-2.59: *Inspection Procedures for the Hazardous Waste Operations and Emergency Response Standard, 29 CFR 1910.120 (q)*